

Formula 4

*Sub  
β'*  
wherein,

*Ab*  
 $R_1$  is selected from the group consisting of hydrogen, alkyl, amino, alkylamino, and  $N,N$ -dialkylamino;

$R_2$  is selected from the group consisting of hydrogen and alkyl; and

$R_3$  is an electron-donating substituent.

Claim 33 (New). The method of claim 32, wherein the compound, composition or mixture is a base oil or mixture thereof suitable for the intended use as a lubricant.

Claim 34 (New). The method of claim 33, wherein the base oil is selected from the group consisting of a conventionally refined mineral oil, an oil derived from coal tar or shale, a vegetable oil, an animal oil, a hydrocracked oil, a synthetic oil, or any mixture thereof.

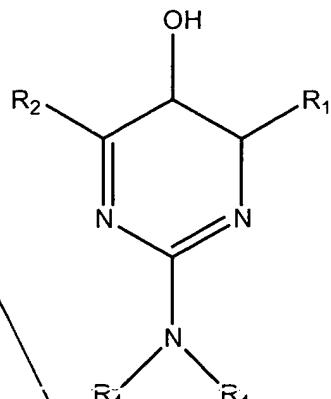
Claim 35 (New). The method of claim 32, wherein  $R_2$  is selected from the group consisting of alkoxy, amino,  $N$ -alkylamino and  $N,N$ -dialkylamino.

Claim 36 (New). The method of claim 32, wherein the compound of claim 1, wherein,  
R<sub>1</sub> is selected from the group consisting of hydrogen and alkyl;  
R<sub>2</sub> is selected from the group consisting of hydrogen, and alkyl; and  
R<sub>3</sub> is selected from the group consisting of alkoxy, amino, N - alkylamino, and N,N-dialkylamino.

*AB*  
*SVH*  
*PM*

Claim 37 (New). The method of claim 32, wherein the compound of claim 1, wherein,  
R<sub>1</sub> is selected from the group consisting of amino, N-alkylamino and N,N-dialkylamino;  
R<sub>2</sub> is selected from the group consisting of hydrogen, and alkyl; and  
R<sub>3</sub> is selected from the group consisting of alkoxy, amino, N-alkylamino, and N,N-dialkylamino.

Claim 38 (New). The method of claim 32, wherein the pyrimidine compound is of the following formula:



Formula 7

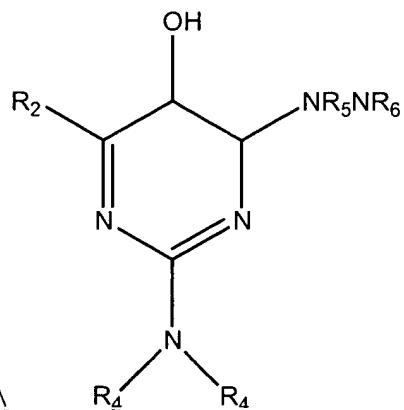
wherein,

R<sub>1</sub> and R<sub>2</sub> are H, methyl, or t-butyl; and

R<sub>4</sub> is H, methyl, ethyl, t-butyl, pentyl, octyl, or phytyl.

Claim 39 (New). The method of claim 38, wherein R<sub>2</sub> is methyl, or t-butyl.

Claim 40 (New). The method of claim 32, wherein the pyrimidine compound is of the following formula:



Formula 9

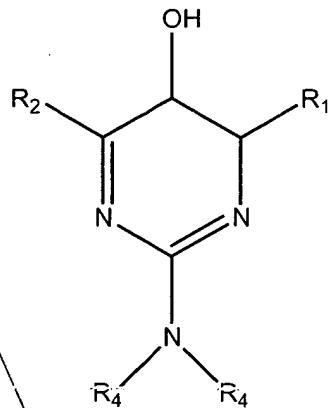
*AB*  
*sub*  
*B1*

wherein,

R<sub>2</sub> is H, methyl, or t-butyl; and

R<sub>4</sub>, R<sub>5</sub>, and R<sub>6</sub> are H, methyl, ethyl, t-butyl, pentyl, octyl, or phytyl.

Claim 41 (New). The method of claim 32, wherein the pyrimidine compound is of the following formula:

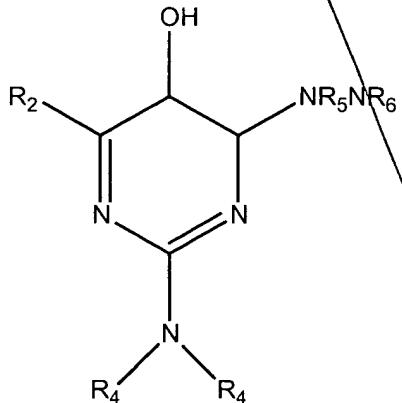


Formula 7

*Ab*  
wherein,

*Suh*  
*B1*  
R<sub>1</sub>, R<sub>2</sub>, and R<sub>4</sub> are H, or an alkyl group.

Claim 42 (New). The method of claim 32, wherein the pyrimidine compound is of the following formula:



Formula 9

*Su b*  
*Bl*  
wherein,  
 $R_2, R_4, R_5$ , and  $R_6$  are H, or an alkyl group.

Claim 43 (New). The method of claim 32, wherein the pyrimidine compound is 5-pyrimidinol.

*Bl*  
Claim 44 (New). The method of claim 32, wherein the pyrimidine compound is 2,4,6-trimethyl-5-pyrimidinol.

*Su b*  
Claim 45 (New). The method of claim 32, wherein the pyrimidine compound is 2-methyl-4,6-di-tert-buyl-5-pyrimidinol.

*Bl*  
Claim 46 (New). The method of claim 32, wherein the pyrimidine compound is 2-methoxy-4,6-dimethyl-5-pyrimidinol.

Claim 47 (New). The method of claim 32, wherein the pyrimidine compound is 2-N,N-dimethylamino-4,6-dimethyl-5-pyrimidinol.

Claim 48 (New). The method of claim 32, wherein the composition in which oxidation is inhibited is a petroleum composition selected from the group consisting of lubricating compositions and liquid organic fuels, and:  
the introducing step reduces the oxidative environment in the petroleum composition.